DOCUMENT RESUME

ED 444 231 EA 030 547

AUTHOR Bush, M. Joan; Johnstone, Whitcomb G.

TITLE An Observation Evaluation of High School A/B Block Classes: Variety or Monotony?

PUB DATE 2000-04-00

NOTE 36p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, Louisiana, April 24-28, 2000).

PUB TYPE Numerical/Quantitative Data (110) -- Reports - Research (143) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS *Block Scheduling; *Classroom Techniques; Educational Environment; Educational Practices; *Flexible Scheduling; High Schools; School Schedules; Teacher Improvement; *Teaching Methods; *Time Management; *Time on Task

IDENTIFIERS Irving Independent School District TX

ABSTRACT

This paper examines the implementation of an alternate block (A/B) schedule in three high schools in Irving, Texas. The purpose is to review how time was used in 48 randomly selected high school Algebra 1, Biology 1, English 2, and U.S. History classes. Of the 48 classes, 12 observations were conducted for each course. The findings revealed a predominance of teacher-centered instruction across all courses. Teachers spent the majority of time presenting content and monitoring student seatwork, while students primarily listened to the teacher, responded to teacher questions, and completed seatwork. The most used teacher and student materials (overhead, chalkboard, textbooks, worksheets, notebook paper) further pointed to a teacher-centered environment. Results of checklists revealed a moderately high level of student engagement, little or no individualization of instruction, and a mixed use of thinking indicators. When teacher and student time allocations were compared to expert estimates, large discrepancies were found which further accentuated the lack of student-centered instruction included in the lessons. After 4 years, most teachers had not adapted instruction to take advantage of the longer blocks of time. Implications indicate that teachers needed clear, measurable goals related to instructional strategies and the best use of 90-minute blocks of time. (Author)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 444 231

An Observation Evaluation of High School A/B Block Classes: Variety or Monotony?

by

M. Joan Bush, Ph.D.

and

Whitcomb G. Johnstone, Ph.D.

Department of Planning, Evaluation, and Research
Irving Public Schools

Paper Presented at the Annual Meeting of the
American Educational Research Association

April 2000
New Orleans, Louisiana

BEST COPY AVAILABLE

EA 030547

Abstract

The objective of the present study was to see if the alternate block (A/B) schedule was implemented as planned in the three Irving ISD high schools. Specifically, the purpose was to review how time was used in 48 randomly selected high school Algebra I, Biology I, English II, and U.S. History classes on the A/B schedule. The findings revealed a predominance of teacher-centered instruction across all courses. Teachers in all subject areas spent the majority of time presenting content and monitoring student seatwork, while students primarily listened to the teacher, responded to teacher questions, and completed seatwork. The most-used teacher and student materials (overhead, chalkboard, textbooks, worksheets, notebook paper) further pointed to a teacher-centered environment. Results of checklists showed a moderately high level of student engagement, little or no individualization of instruction, and mixed use of thinking indicators. When teacher and student time allocations were compared to Dallas area expert estimates, large discrepancies were found and further accentuated the lack of student-centered instruction included in the lessons. From an instructional standpoint, the A/B block schedule was not implemented as planned. After four years, most teachers had not adapted instruction to take advantage of the longer blocks of time. Even with extended class time, there was minimal variety in teaching activities and in-depth problem solving. Implications of the study were that teachers needed clear, measurable goals related to instructional strategies and how to use 90-minute blocks of time, (b) staff development that is meaningful, relevant, and helpful as they attempt changes in instructional practices, and (c) accountability to try new strategies and activities.

An Observation Evaluation of High School A/B Block Schedule Classes: Variety or Monotony

Introduction

The three comprehensive high schools in Irving ISD have been on the alternate block (A/B) schedule since the 1995-96 school year. The evaluation of the fourth year of A/B block scheduling was comprised of observation data as well as a review of student outcome measures. This paper is limited to the results of the observation study. The objective of the study was to review how time was used during the 90-minute periods of instruction in a random selection of high school classes and to see if the A/B schedule had been implemented as planned.

Related Literature

Many secondary schools have moved to the use of block schedules in an effort to provide extended periods of time that allow "students to develop the types of skills—teaming, process improvement, working to standards, and lifelong learning—that will allow them to be highly productive in the future" (Shortt and Thayer 1997, p. 2). According to Cawelti (1994), block scheduling allows for flexibility and diverse types of instructional activities through the use of large blocks of time. For example, "students can learn facts and concepts, then do a project that applies this information to real life. This combination transforms them from passive learners doing 'seat time' to active learners who perform meaningful tasks related to real life" (Irmsher 1996, p. 8). Thus, a major advantage of block scheduling is extended class time for varied teaching activities and in-depth learning. In contrast, a danger of block scheduling is that teachers continue to use the added time for traditional lecture and student practice rather than changing their teaching style to accommodate the longer time period (Kramer 1996).

Although the extended time available in a block schedule lends itself toward innovative instructional activities, they do not automatically occur (O'Neil 1995). Kramer (1996) noted that "Although lecturing appeared to be less effective in a block schedule, the assumption that this decreased effectiveness would cause teachers to rely more on participatory modes of instruction was not supported—*unless* teachers were given adequate planning time and considerable staff development." (p. 19) Similarly, Shortt and Thayer reported that block scheduling had little chance of success unless clear,

measurable goals were articulated, meaningful staff development was provided, and teachers were expected to change their teaching methods. Based upon observations and data collected from students and school personnel, Shortt and Thayer (1997, p. 4) noted that "while the *structure* of the time has been changed, little change has occurred with the *use* of the time." They went on to say (p.13), "Unfortunately, change will not occur just because you expose teachers to a good idea. Teachers make the decision about the way they will teach, and unless the culture of the school rewards them for change, they will not spend the time and energy to do it." Thus, a challenge of block scheduling is helping teachers adapt their instructional strategies to match the longer blocks of time.

An observation study conducted during the 1997-98 school year in Irving ISD high schools showed that Algebra I teachers in the district had not changed their teaching style to accommodate the longer blocks of time. Instead, they primarily engaged in teacher-centered presentation of content and student seatwork (Bush 1998). As a result of that study, the 1998-99 study was expanded to include four core high school courses that all students must complete.

Purpose of Study

The overall purpose of this study was to determine how teachers structured their time during the 90-minute blocks of instruction. A secondary purpose was to find out if instruction had shifted from traditional teacher-centered instruction with students passively participating (presumed to be predominant in the traditional seven-period schedule) toward more student-centered instruction in which students were actively involved in learning (the most-stated advantage of block scheduling). Specifically, the purpose of the study was to answer the following questions.

1. What types of materials and equipment were used by teachers and students?
2. Were students engaged and allowed to add to their learning?
3. Did teachers individualize and differentiate student instruction?
4. Did teachers maintain a positive learning environment?
5. Did teachers use a variety of thinking indicators to make learning meaningful to their students?
6. How did teachers utilize their time during the 90-minute blocks?

7. Did teachers' use of time differ from experts' estimates of how time should be used?

Methodology

The courses that have Texas Assessment of Academic Skills (TAAS) End of Course (EOC) Exams were selected for the study since they are core courses that all students take. They included Algebra I, Biology I, English II, and U.S. History. Special Education and English-as-a-Second-Language (ESL) classes were not observed since, in most cases, those sections do not take the TAAS EOC exams. In all, the evaluator observed 48 randomly selected classes. Of the 48 classes, 12 observations were conducted for each course. Four observations were conducted per course at each high school for a total of 16 per school. (See Table 1.)

Table 1

Number of Classes Observed By School and Course

Subject	Irving High	MacArthur	Nimitz	All
Algebra I	4	4	4	12
Biology I	4	4	4	12
English II	4	4	4	12
U.S. History	4	4	4	12
Total	16	16	16	48

All classes were randomly selected in a two-step method. First, four teachers from each campus were randomly selected per course. Next, the section to be observed was randomly selected for each teacher. Observations were conducted between September 21 and October 26, 1998. Teachers were sent a memorandum indicating that they would be observed during the first semester, but teachers did not know the exact time of the observation. Each observation lasted the full class time.

The observation instrument used was an adaptation of Evertson and Burry's (1989) Classroom Activity Record (CAR), Winocur's (1991) Classroom Observation Checklist, and the Dallas Public Schools' Program Observation Form (Shapley and Bush 1997). The instrument consisted of eight sections: (a) identification information, (b) materials and equipment used by the teacher, (c) materials and equipment used by the students, (d) student engagement/disengagement scale, (e) individualization and

differentiation scale, (f) classroom management scale, (g) thinking indicators scale, and (h) the Program Observation Record. The Program Observation Record provided a minute-by-minute record of teacher activities, student activities, and classroom configurations. Additionally, the Program Observation Record included a means to record the number of students on task, off task, and waiting at 10-minute intervals.

Results

What types of materials and equipment were used by teachers and students?

The types of materials and equipment used by the teacher and students were studied to note the level of students' participation in their learning. In a student-centered environment, students typically use manipulatives or references to solve real-life problems with the teacher serving as a facilitator. Teachers are more likely to demonstrate and review concepts on the chalkboard or overhead projector while students do practice exercises from textbooks and worksheets in a teacher-centered environment. The predominant teacher materials were the chalkboard (73%) and overhead (46%), whereas the most-used student materials were textbooks (77%), worksheets (73%), and notebook paper (73%). (See Table 2.) All of the Algebra I teachers used the overhead projector, and over half of the teachers in each course used the chalkboard. In 58% or more of all classes across the four courses, students used textbooks, worksheets, and notebook paper. Thus, the primary teacher and student materials used indicate a teacher-centered environment.

Table 2

Percentage of Materials and Equipment
Used By Teachers and Students

Materials/Equipment	Algebra I N (%)	Biology I N (%)	English II N (%)	U.S. History N (%)	All N (%)
Teacher Materials					
Overhead	12 (100)	3 (25)	5 (42)	2 (17)	22 (46)
VCR	0 (0)	2 (17)	1 (8)	2 (17)	5 (10)
Computer	0 (0)	1 (8)	0 (0)	1 (8)	2 (4)
Chalkboard	7 (58)	12 (100)	8 (67)	8 (67)	35 (73)
Map	0 (0)	0 (0)	0 (0)	3 (25)	3 (6)
Lab equipment	0 (0)	1 (8)	0 (0)	0 (0)	1 (2)
Other	1 (8)	4 (33)	2 (17)	0 (0)	7 (15)
Student Materials					
Textbooks	9 (75)	10 (83)	8 (67)	10 (83)	37 (77)
Standard/graphic calculator	6 (50)	0 (0)	0 (0)	0 (0)	6 (13)
Computer	0 (0)	0 (0)	1 (8)	0 (0)	1 (2)
Chalkboard	1 (8)	0 (0)	0 (0)	0 (0)	1 (2)
Reference materials	0 (0)	0 (0)	0 (0)	1 (8)	1 (2)
Supplemental literature	0 (0)	0 (0)	1 (8)	0 (0)	1 (2)
Worksheets	8 (67)	9 (75)	10 (83)	8 (67)	35 (73)
Student journals	0 (0)	0 (0)	5 (42)	0 (0)	5 (10)
Map	0 (0)	0 (0)	0 (0)	1 (8)	1 (2)
Notebook paper	8 (67)	11 (92)	9 (75)	7 (58)	35 (73)
Other	2 (17)	2 (17)	2 (17)	1 (8)	7 (15)

Were students engaged and allowed to add to their learning?

Eight student engagement/disengagement indicators were included on the observation instrument. (See Table 3). Results were very strong for five of the eight student engagement/disengagement indicators. In most classes, students complied with the teacher's assignments (98%), responded to the teacher's questions (92%), and paid attention in class (94%). Similarly, there were no students sleeping, daydreaming, or talking to peers about nonclass matters in 94% of the classes, and no students that made noise or disrupted in another 94% of the classes. Students in 60% of the classes showed some interest, excitement, and involvement in learning tasks. Thus, it is of concern that students in 40% of the classes showed little interest in what was being taught. It was disappointing that little student interest was seen in 9 of the 12 Algebra I classes that were observed. In 19% of the classes, students worked together to explore ideas collaboratively and elaborated on a topic by raising questions or sharing ideas.

Table 3

Student Engagement/Disengagement Indicators

Indicator	Algebra I N (%)	Biology I N (%)	English II N (%)	U.S. History N (%)	All N (%)
1. Students complied with teacher's assignments.	11 (92)	12 (100)	12 (100)	12 (100)	47 (98)
2. Students responded to the teacher's questions.	12 (100)	9 (75)	11 (92)	12 (100)	44 (92)
3. Students paid attention in class.	9 (75)	12 (100)	12 (100)	12 (100)	45 (94)
4. Students showed interest, excitement, and involvement in learning tasks.	3 (25)	7 (58)	10 (83)	9 (75)	29 (60)
5. Students worked together to explore ideas collaboratively.	0 (0)	1 (8)	3 (25)	5 (42)	9 (19)
6. Students elaborated on the topic by raising questions or sharing their ideas.	0 (0)	3 (25)	3 (25)	3 (25)	9 (19)
7. Students slept, daydreamed, or talked to peers about nonclass matters.	1 (8)	0 (0)	1 (8)	1 (8)	3 (6)
8. Students made noise or disrupted the class.	2 (17)	0 (0)	0 (0)	1 (8)	3 (6)

The number of students on task, off task, and waiting was recorded every 10 minutes. (See Table 4.) Students were counted as "on task" if they were complying with the teacher-assigned activities or tasks, but were counted as "off task" if they did not comply. If students had no assigned task and were waiting or talking quietly, they were counted as "waiting". Percentages were computed for the three student engagement categories. Overall, 85% of the students were on task, 7% were off task, and 8% were waiting. When reviewed by subject area, English II classes had the highest on-task percentage (91%) and the lowest off-task (4%) and waiting (5%) percentages. In contrast, Algebra I classes had the lowest on-task percentage (75%) and the highest off-task (11%) and waiting (14%) percentages.

Table 4

Student Engagement Ratings

Rating	Algebra I %	Biology I %	English II %	U.S. History %	All %
On task	75	87	91	85	85
Off task	11	7	4	6	7
Waiting	14	6	5	9	8

Did teachers individualize and differentiate student instruction?

Three indicators related to individualization and differentiation of student instruction were included. As seen in Table 5, very little individualization or differentiation of work was seen in any of the 48 classes. There were no classes in which students worked on different content or activities based on their identified instructional levels. Students selected their own activities from a variety of learning tasks in 2 (4%) of the 48 observed classes. In 6 (13%) of the classes, students who finished their work early read or worked on other projects.

Table 5

Student Individualization/Differentiation Indicators

Indicator	Algebra I N (%)	Biology I N (%)	English II N (%)	U.S. History N (%)	All N (%)
1. Students worked on different content or activities based on their identified instructional levels.	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
2. Students selected their own activities from among a variety of learning tasks.	0 (0)	0 (0)	2 (17)	0 (0)	2 (4)
3. Students who finished their work early read or worked on other projects.	1 (8)	0 (0)	3 (25)	2 (17)	6 (13)

Did teachers have good classroom management?

Three indicators related to classroom management were included on the observation instrument. (See Table 6.) In most classes, the teacher maintained orderly transitions from activity to activity (96%) and interacted with students in a nonconfrontational manner (98%). Teachers reinforced desired behavior in 88% of the classrooms. When reviewed by course, it was clear that there were problems with classroom management in some of the Algebra I classes.

Table 6

Classroom Management/Learning Environment Indicators

Indicator	Algebra I N (%)	Biology I N (%)	English II N (%)	U.S. History N (%)	All N (%)
1. Teacher maintained orderly transitions from activity to activity.	10 (83)	12 (100)	12 (100)	12 (100)	46 (96)
2. Teacher interacted with students in a nonconfrontational manner.	11 (92)	12 (100)	12 (100)	12 (100)	47 (98)
3. Teacher reinforced desired behavior.	7 (58)	12 (100)	11 (92)	12 (100)	42 (88)

Did teachers use a variety of thinking indicators to make learning meaningful to their students?

Seven thinking indicators were included on the observation instrument. As seen in Table 7, results of the thinking indicators were mixed. In 71% of the classes, the teacher related the subject matter to other contexts or to everyday life. Over half (56%) of the teachers asked students to explain key concepts, definitions, and attributes in their own words. Almost half (48%) of the teachers had students think about and relate examples from their own experience and asked open-ended questions with multiple answers. Teachers asked students to justify ideas and explain their thoughts in 46% of the classes. Less than a third of the teachers (31%) allowed students time to consider alternatives, points of view, and multiple solutions. Teachers asked if/then, what if, or suppose that questions in 23% of the classes. When reviewed by course, over half of the teachers used 6 of the 7 indicators in English II, and more than half used 5 of the 7 indicators in Biology I and U.S. History. Most thinking indicators were not observed in Algebra I classes. The majority of the Algebra I teachers (75%) related the subject matter to other contexts or to everyday life; however, 25% or fewer utilized the other 6 thinking indicators.

Table 7

Thinking Indicators

Indicator	Algebra I N (%)	Biology I N (%)	English II N (%)	U.S. History N (%)	All N (%)
1. Teacher had students think about and relate examples from their own experience.	2 (17)	7 (58)	7 (58)	7 (58)	23 (48)
2. Teacher related the subject matter to other contexts or to everyday life.	9 (75)	10 (83)	7 (58)	8 (67)	34 (71)
3. Teacher asked students to justify ideas and explain their thoughts.	1 (8)	7 (58)	6 (50)	8 (67)	22 (46)
4. Teacher allowed time to consider alternatives, points of view, multiple solutions.	0 (0)	4 (33)	6 (50)	5 (42)	15 (31)
5. Teacher asked open-ended questions with multiple answers.	0 (0)	7 (58)	8 (67)	8 (67)	23 (48)
6. Teacher asked if/then, what if, or suppose that questions.	1 (8)	3 (25)	3 (25)	4 (33)	11 (23)
7. Teacher asked students to explain key concepts, definitions, and attributes in their own words.	3 (25)	7 (58)	9 (75)	8 (67)	27 (56)

How did teachers utilize their time during the 90-minute blocks?

The proportion of time per class configuration is shown in Table 8. The majority of class time was devoted to whole class instruction (60%) in all courses. Additionally, 30% was allotted for independent work, and 10% was spent on small group work. No small group work was observed in Algebra I classes, but was seen in Biology I (27%), English II (35%), and U.S. History (28%) classes. Between 55% and 69% of the time was allotted for whole group instruction in all courses, whereas 27% to 35% of the time was allocated for independent work.

Table 8

Percentage of Times By Class Configuration and Course

Class Configuration	Algebra I	Biology I	English II	U.S. History	All
Whole group	69	60	57	55	60
Small groups/pairs	0	13	8	17	10
Independent/individual	31	27	35	28	30

The amount of time spent on teacher activities is shown in Table 9. Most teacher time was spent presenting content/guiding discussion (46%), monitoring seatwork (27%), and doing non-academic/procedural activities (21%). (See Table 9.) Over half of the teacher time (58%) in Algebra I and almost half (49%) in U.S. History classes was devoted to presenting content/guiding discussion. English II teachers spent more time monitoring seatwork (38%) than teachers in other courses, whereas more time was spent on nonacademic activities in Biology I classes (35%) than other courses.

Table 9

Percentage of Time Spent on Teacher Activities

Teacher Activity	Algebra I	Biology I	English II	U.S. History	All
Presenting content/guided discussion	58	40	39	49	46
Student Presentations	0	1	4	1	1
Monitoring student seatwork	22	23	38	24	27
One-on-one instruction	<1	0	0	0	<1
Checking/grading	1	<1	1	0	1
Testing/assessment	2	1	4	8	4
Nonacademic	17	35	14	18	21

Time used for student activities is shown in Table 10. Students spent about half of the time (51%) listening and responding to the teacher and over a quarter (26%) of the

time completing short-answer exercises or homework problems. Additionally, time was spent on non-academic activities (8%), writing (4%), testing (4%), reading (3%), problem solving (2%), and computer activities (2%). Across all courses, most student time was spent listening and responding with Algebra I having the largest percentage (59%) and English II the smallest (47%). Students in Biology I (37%) spent the most time on short answer exercises followed by students in Algebra I (28%) and U.S. History (25%). Less time (13%) was spent on short answer exercises in English II than the other courses.

Table 10

Percentage of Time Spent on Student Activities

Student Activity	Algebra I	Biology I	English II	U.S. History	All
Reading	0	<1	10	2	3
Writing	0	1	12	3	4
Listening/responding	59	51	47	48	51
Short-answer exercise/homework	28	37	13	25	26
Problem solving	0	0	1	8	2
Computer activities	0	0	7	0	2
Testing/assessment	2	1	4	8	4
Nonacademic activity	11	10	6	6	8

Did teachers' use of time differ from expert estimates of how time should be used?

The district subject area coordinators were asked to work with other coordinators in the Dallas area to estimate how time *should* be spent during A/B Block classes. By comparing how time *should* be spent with how time actually *was* spent, the results can serve as a needs assessment for where instruction is in comparison to where we want it to be. The predicted and actual times for teacher activities are shown in Figures 1 to 4. Figures 1 and 2 show that much more time was spent on presenting content/guided discussion and non-academic activities than predicted for both Algebra I and Biology I classes. Actual and predicted percentages were very close for monitoring student seatwork in both subject areas. Much less time was spent on one-on-one instruction, checking/grading, testing, and discipline than was predicted. As seen in Figures 3 and 4, actual and predicted percentages for presenting content/guided discussion were close for both English II and U.S. History teachers. In contrast, much more time was spent on monitoring seatwork and nonacademic activities than predicted for both subject areas, whereas less time was spent on the remaining teacher activities than predicted.

Figures 5 through 8 show the predicted and actual percentages of time used for student activities. Across all four courses, it is clear that students spent noticeably more time listening and responding and completing short-answer exercises than was predicted. Also, except for U.S. History, students spent more time on nonacademic activities than predicted. With a few exceptions, less time was spent on the remaining student activities than predicted across all four courses. Even so, predictions were close to actual times for 4 to 5 of the remaining activities for English II and U.S. History. In contrast, larger discrepancies were noted between actual and predicted times for Algebra I and Biology I.

In summary, some discrepancies were noted between what was predicted and what was observed for teacher and student activities. In most cases, the discrepancies were due to instruction that was predominantly teacher-centered with students passively listening rather than actively participating in their learning. The discrepancies pinpoint where instructional changes are desired and should serve as a guide for future staff development related to instruction in block-scheduled classes.

Figure 1
Predicted and Actual Time Allocated to Algebra I Teacher Activities

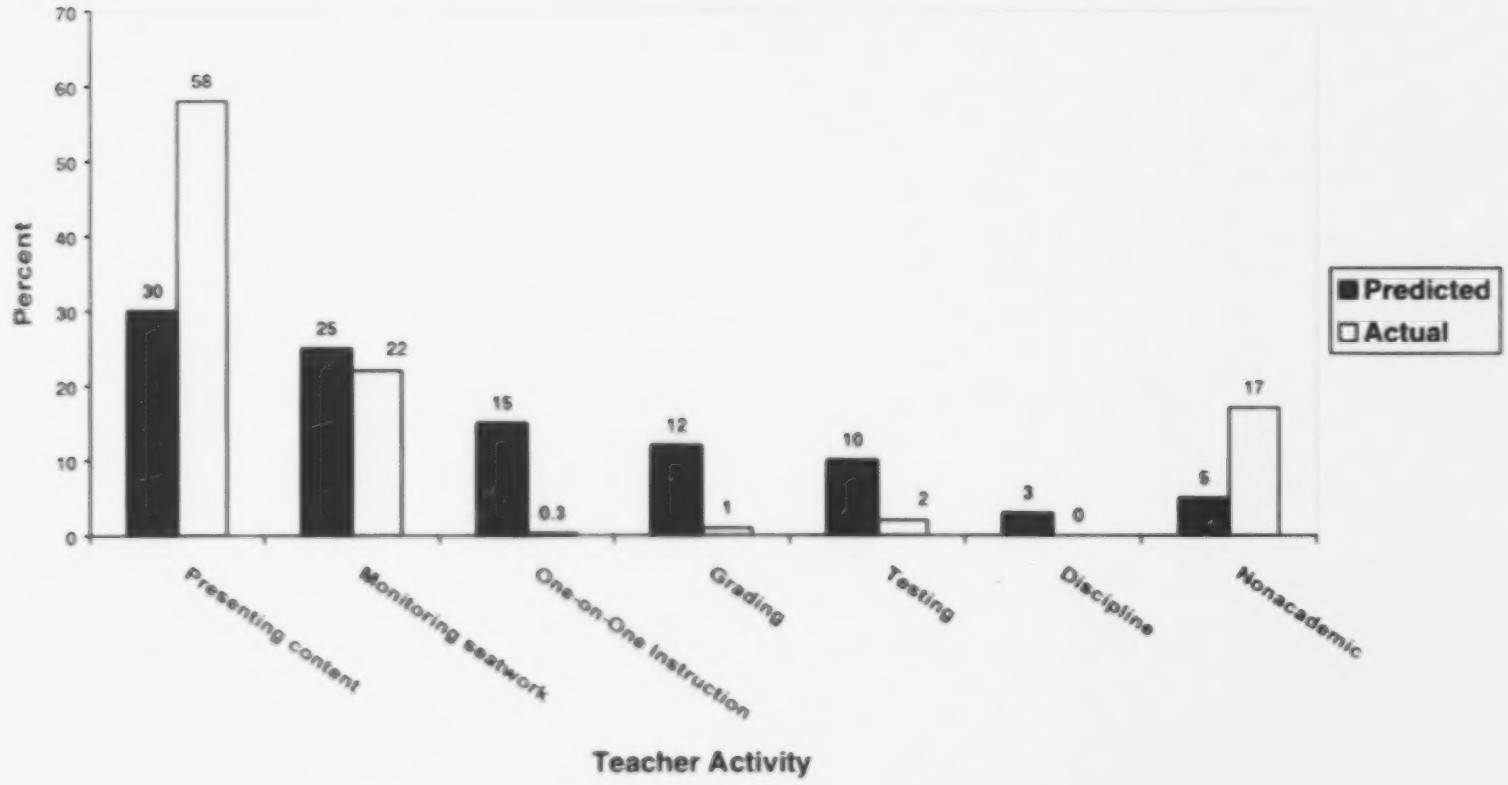


Figure 2
Predicted and Actual Time Allocated to Biology I Teacher Activities

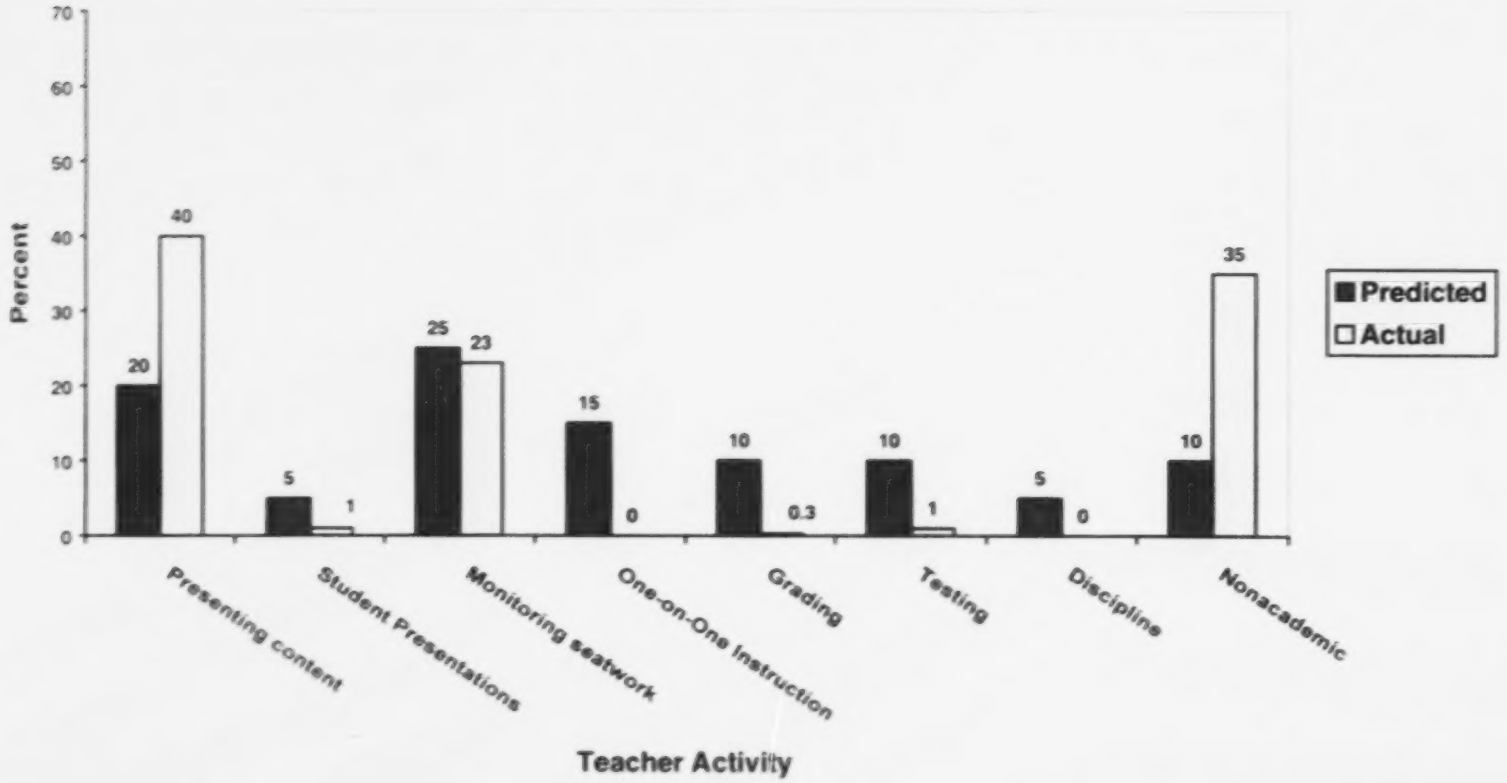


Figure 3
Predicted and Actual Time Allocated to English II Teacher Activities

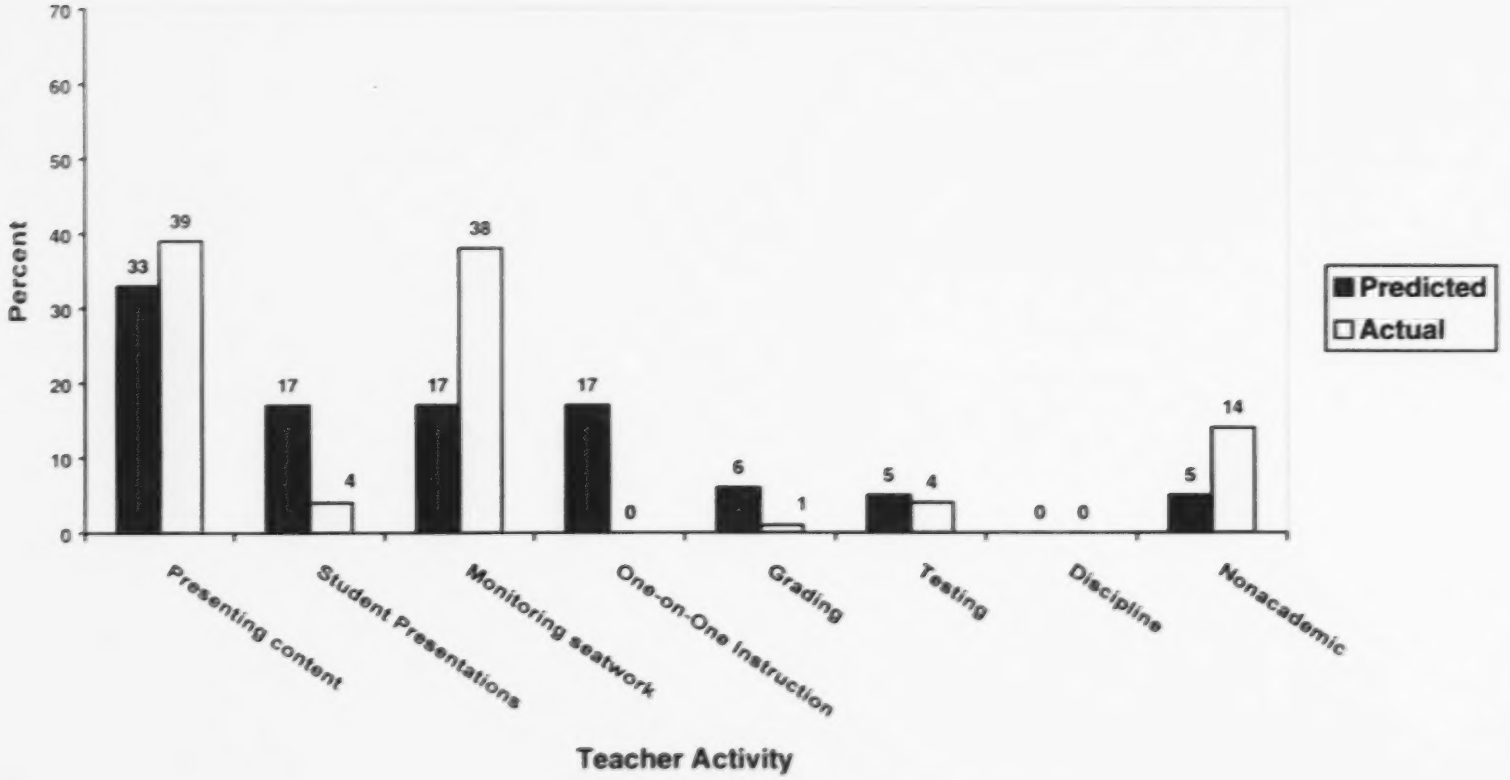


Figure 4
Predicted and Actual Time Allocated to U.S. History Teacher Activities

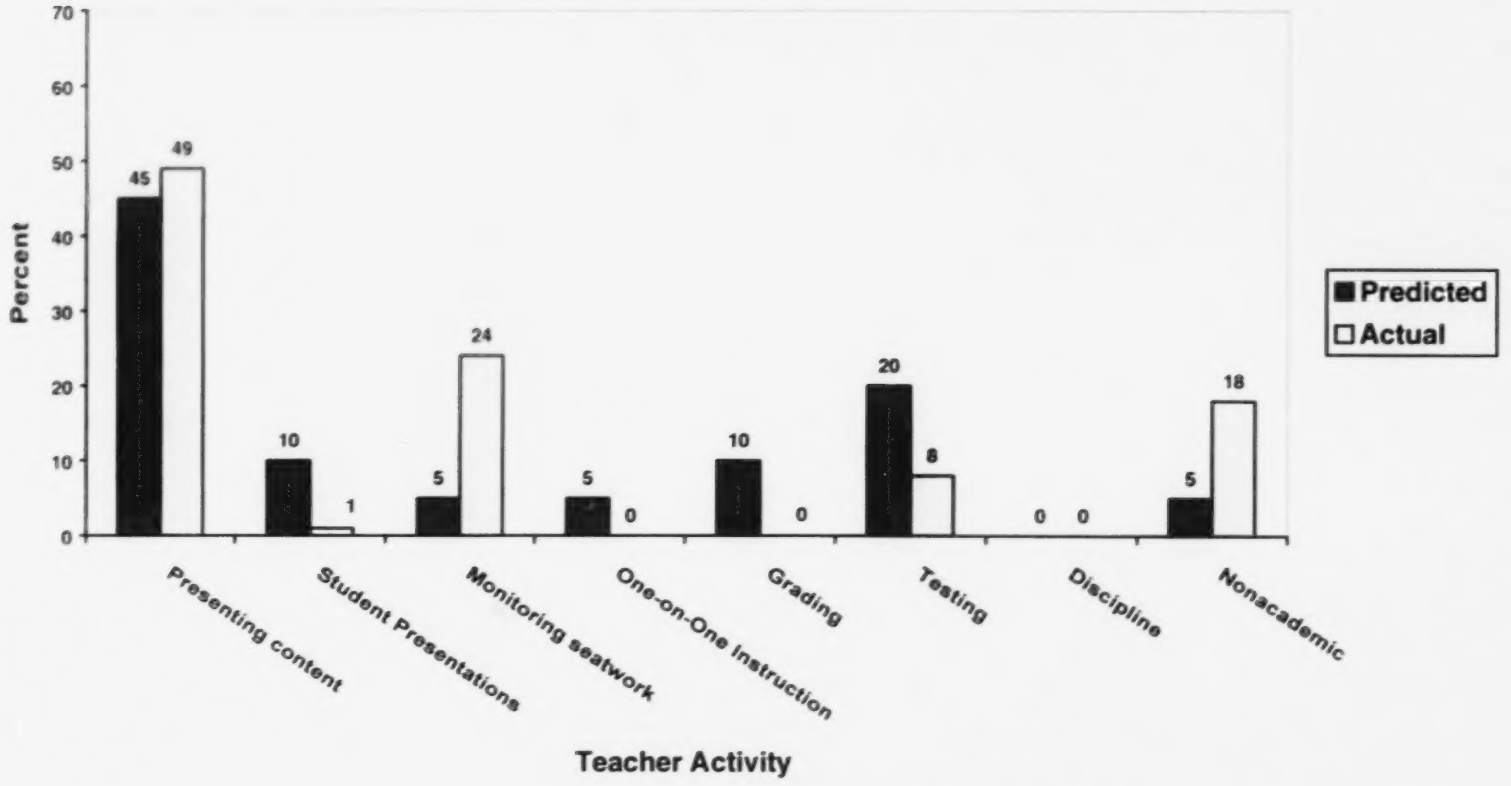
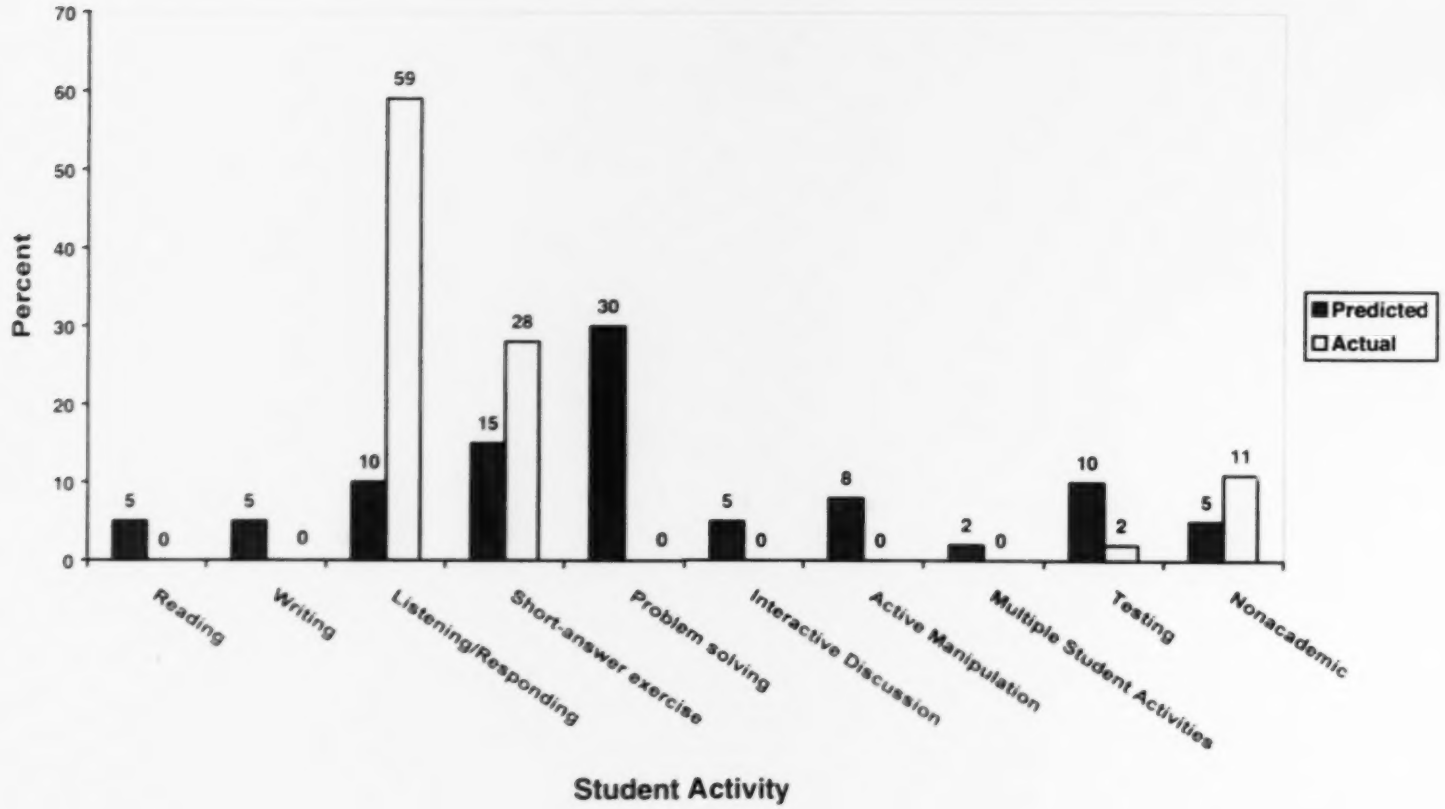


Figure 5
Predicted and Actual Time Allocated to Algebra I Student Activities



BEST COPY AVAILABLE

Figure 6
Predicted and Actual Time Allocated to Biology I Student Activities

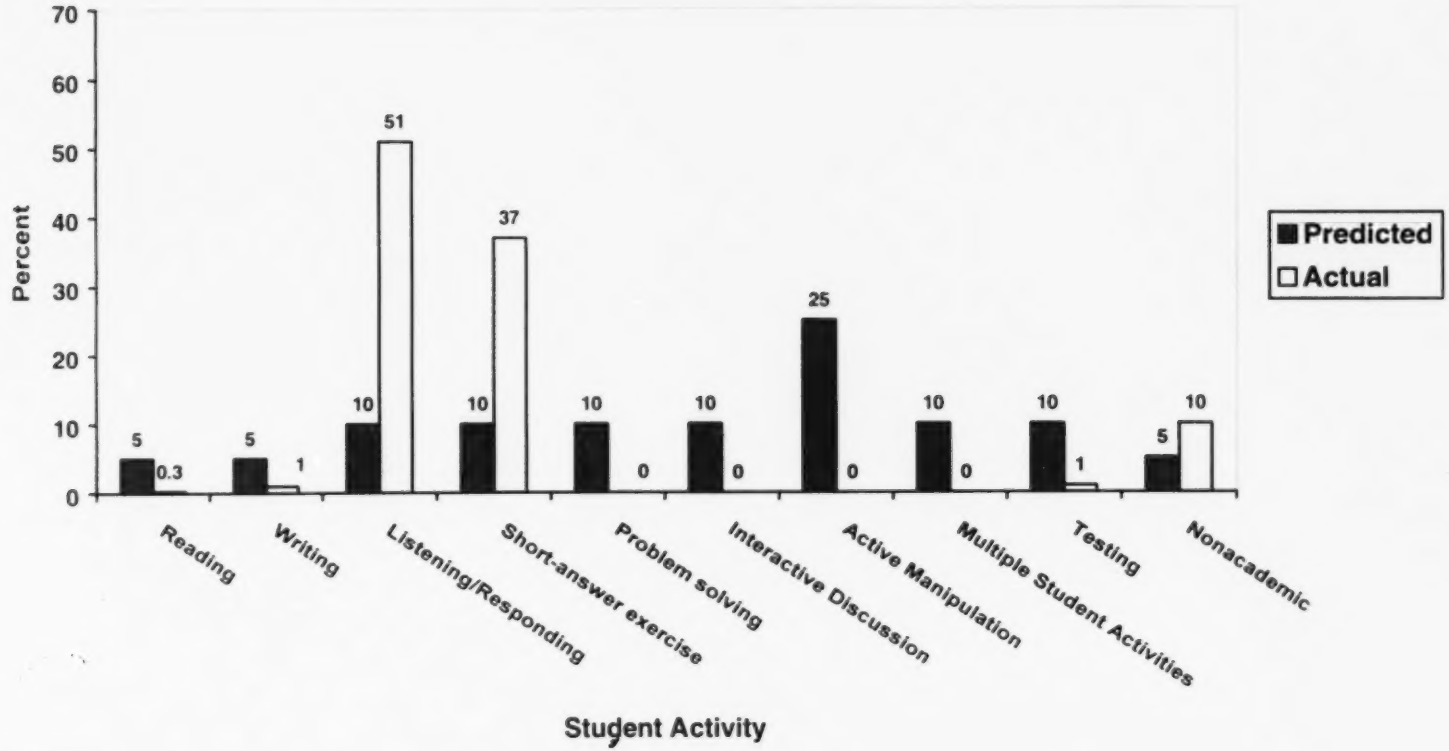
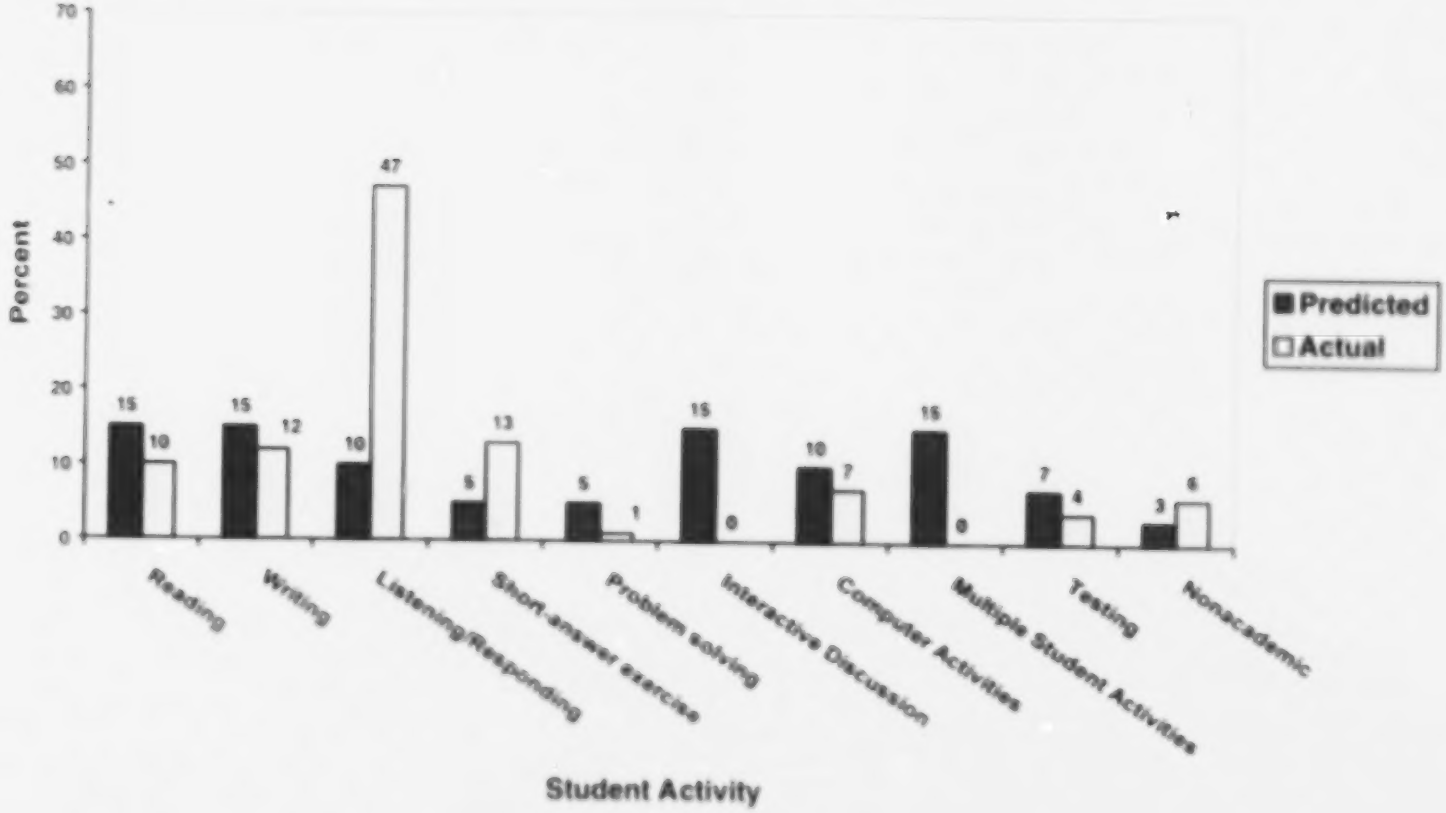
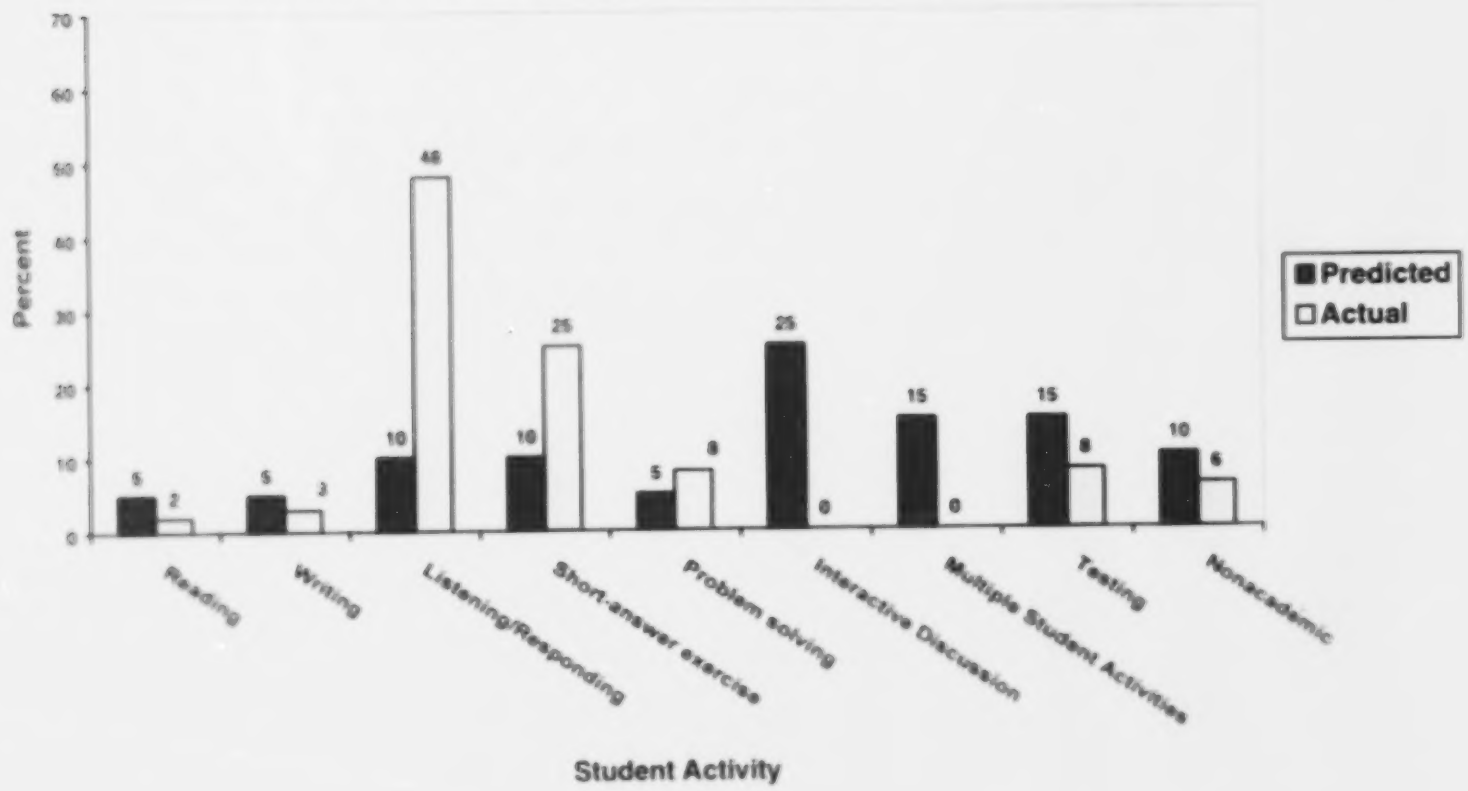


Figure 7
Predicted and Actual Time Allocated to English II Student Activities



BEST COPY AVAILABLE

Figure 8
Predicted and Actual Time Allocated to U.S. History Student Activities



BEST COPY AVAILABLE

Summary and Conclusions

In summary, the results of the study were disappointing since teachers had not changed their instruction to match the longer periods of time. Instead, the overall picture reflected a predominance of teacher-centered instruction across all four courses. The most-used materials and equipment were characteristic of teacher-centered instruction (i.e., overhead, chalkboard, textbooks, worksheets, etc.). Overall, classroom climate was positive and student engagement was high. However, there was little or no student individualization or differentiation. Teachers' use of thinking indicators were mixed and further revealed the predominance of teacher-centered instruction. Teachers spent most of their time presenting content/guiding discussion and monitoring student seatwork. Most of the students' time was used for listening and responding and doing short-answer exercises or homework. Comparisons of actual time allocations to expert estimates further revealed a need to shift from a primarily teacher-centered classroom to an environment with a balance of teacher- and student-centered activities.

Suggestions related to the results of the study follow.

1. *Clear, measurable goals related to instructional practices are needed for those who teach in extended periods.* Teachers need to be an integral part of the goal development process and to have a clear understanding of instructional expectations. Unless teachers know what is expected, change is not going to happen automatically. Goals should mirror the local expert estimates of how time should be used in an effort to close the gaps between "what should be" and "what is". Additionally, goals should reflect state and national standards.
2. *Teachers need ongoing staff development related to teaching in the block and teaching in the 21st century.* Specifically, teachers would benefit from more instruction related to time allocations, teacher- and student-centered instructional strategies, constructivist learning and thinking strategies, disciplinary issues in a learner-centered environment, and so forth.
3. *Teachers should know their expectations related to the provision of teacher- and student-centered teaching methods and should be rewarded when they comply.* Unless teachers are held accountable for trying new things and going beyond

traditional, teacher-centered instruction, instructional practice will never change. Perhaps a reward system that gives teachers more credit for training hours when they implement the new approaches in their classes should be reviewed.

References

Bush, M. J. (1998). *Observation Evaluation of Algebra I A/B Block Schedule Classes*. Irving, TX: Irving Independent School District Division of Planning, Evaluation, and Research.

Cawelti, G. (1994). *High School Restructuring: A National Study*. Arlington, VA: Educational Research Service.

Evertson, C. and Burry, J. (1989). Capturing classroom context: The observations system as lens for assessment. *Journal of Personnel Evaluation in Education*, 2, 297-320.

Irmsher, K. (1996). Block scheduling in high school. Oregon School Study Council. ERIC document ED 399 673.

Kramer, S. (1996). Block scheduling and high school mathematics instruction. *The mathematics teacher*, 89 (9), 758-768.

O'Neil, J. (1995). Finding Time To Learn. *Educational Leadership*, 53 (3), 11-15.

Shapley, K. S. and Bush, M. J. (1997). Characterizing reading and language arts instruction in Title I schoolwide programs: High expectations and disappointing reality. Paper presented at the annual meeting of the American Educational Research Association. Chicago, IL.

Shortt, T. L. and Thayer, Y. V. (1997). A vision for block scheduling: Where are we now? Where are we going? *NASSP Bulletin*, 81 (593), 1-15.

Winocur, S. L. (1991). Classroom observation checklist. In A. L. Costa (Ed.), *Developing minds: A resource book for teaching thinking* (pp. 386-388). Alexandria, VA: Association for Supervision and Curriculum Development.

Appendix
Teacher and Student Activity Code Explanation

Teacher Activity Codes

1. Presenting Content/Guided Discussion
   - The teacher is presenting academic content to the students or developing student thinking strategies.
   - Includes lecture, demonstration, explanation, and modeling of the content or strategies. The main function of the activity is to inform students, introduce new material, explain new material, or review previously introduced material. The activity may include questioning or comments from students.
   - This category may include short individual written tasks, or students may complete a written task simultaneously with the teacher.
   - Individual student seatwork must last less than 3 minutes to be included in this category. (*Individual written work more than 3 minutes is coded as Monitoring student seatwork*).
   - This code could also be used to include a content-oriented game or board work.

2. Student Presentations
   - One of several students presents to the class for **more than 1 minute**.
   - The presentation is planned ahead of time rather than in response to a direct teacher question as in recitation.
   - For example, student may present book reports, research papers, project reports.

3. Monitoring Student Seatwork
   - Students are working at desks individually, or students are involved in group projects or small-group tasks.
   - The teacher walks around the room working briefly with individual students or monitors from the desk.
   - Brief interruptions of seatwork to explain or clarify directions should be left in the *Monitoring student seatwork* code unless they last **more than 3 minutes**.
   - When the teacher has students complete a written task during a content/strategy development activity, the written task should be coded *Monitoring student seatwork* if it lasts **3 minutes or longer**.

4. One-on-One Instruction
   - The teacher provides direct, individualized instruction with one student for **more than 3 minutes** while other students are engaged in seatwork, computer-assisted instruction, silent reading, or other activities. The teacher presents a "mini-lesson" to achieve a specific instructional objective.

5. Checking/Grading
   - The teacher *and* the students are going over seatwork problems, a quiz, or an assignment for the purpose of checking/grading in class.
   - Little or no teacher explanation or review is entailed
   - The teacher or students announce answers or write them on the board or the overhead transparency
   - If the teacher begins reteaching, the coding would change to *Presenting Content/Guided Instruction*.

6. Testing/Assessment
   - Students work independently on a test, quiz, or readiness test.
   - The teacher administers a test or quiz.
   - The teacher conducts individual, small-group, or whole-group performance assessments.

7. Discipline/Behavioral
   - Discipline/Behavioral indicators must last **at least 1 minute**, and the majority of the students are involved, or their work is interrupted to be coded.
   - Teacher presents, reviews, explains classroom procedures/rules governing behavior.
   - Teacher gives the class extensive feedback on their behavior, or discusses problems related to behavior or procedures.
   - The majority of the class is involved in some group discipline for misbehavior.
     - For example, a teacher may require students to put their heads on their desks for a period of time if they have been too disruptive.

8. Non-Academic Activity
   - Includes procedural/administrative activities, waiting time, and other non-academic activities.
   - Activities must involve the majority of the students and must last **at least 1 minute** to be coded non-academic.
   - The teacher is explaining procedures, checking attendance, making announcements, opening or closing routines without academic content, discussing grades, distributing graded papers, recording grades in class, or changing seating.
   - The teacher and the students are involved in changing from one activity to another.
     - Examples: Moving between small groups, getting supplies or materials for a different activity, passing papers, waiting for everyone to get ready, waiting for everyone to get quiet, or waiting for everyone to find a place
   - Waiting time when the majority of the class have no assigned task. Either they are finished and have no assignment or they are just waiting for the next activity.
   - Teacher monitors students in activities such as games, discussions, or TV that are not related to the content of the class.

9. Other
   - This category will include activities not specifically identified above.

Student Activity Codes

1. Reading
   - Students are reading orally, chorally, or silently for **at least 1 minute**.

2. Writing
   - Students are responding in written form to the lesson content.
   - Writing may include answering open-ended questions, journal writing, composing stories, or other activities.
   - Writing does not include copying or writing single words or sentences.

3. Short-answer Exercise (e.g., worksheet, textbook)
   - Students are completing fill-in-the blank, multiple choice, matching or other recognition and recall level exercises to practice their understanding of the lesson objective.
   - Students may be using either a publisher prepared worksheet, teacher prepared papers, or textbook exercises. This activity is usually seen as individual seatwork or pairs of students may complete the activity.

4. Problem Solving/Reasoning/Investigation
   - Students are engaged in an activity that requires (a) investigation over an extended period of time; (b) analyzing and synthesizing data; (c) using evidence and strategies for developing or revising an explanation; (d) developing understanding, thinking strategies, and knowledge of content; (e) using creativity to produce novel ideas, unique products, or innovative solutions; (f) the use of multiple process skills
     - Examples: Finding patterns and relationships, research projects, math projects (e.g., What grocery store gives the best buys?), compare/contrast literature selections (e.g., use a Venn diagram or graphic organizer to compare two stories).

5. Listening and Responding
   - Students are expected to listen to the information that is being imparted by the teacher or others. Predominantly teacher centered.
   - Intermittently, there may be opportunities for students to respond to questions, to ask questions, or to make comments about the content of the lesson.
   - Students may listen with no opportunity for interaction. Students may be listening to lesson content, directions, other students reading, etc.

6. Interactive Discussion
   - Predominantly a student-centered discussion
   - Students present their own ideas and listen to and reflect on the ideas of other students and the teacher.
   - The teacher acts as the facilitator of the discussion.

7. Computer Activities
   - At least 2/3 of the students are using a computer lab or a stand-alone computer to practice a lesson objective.
   - The teacher may be monitoring the students' progress and answering questions that students may have.

8. Active Manipulation
   - Active participation devices are used to support the development of students' cognitive and metacognitive thinking strategies.
   - Students' hands-on experiences with objects accomplish specific learning objectives.
   - Manipulatives may include counters, tiles, plastic alphabet letters, etc.
   - Code *Active Manipulation* when the **majority of the class** has manipulative objects.

9. Multiple Student Activities
   - Students are engaged in several different activities at the same time in order to individualize instruction.
     - Examples: cooperative learning groups, learning centers, stand-alone computers, individualized assignments

10. Test/Assessment
    - Students work independently on a test, quiz, or readiness test.
    - Individual, small-group, or whole-group performance assessments are conducted.

11. Non-academic activity
    - Students have no assigned task. Either they are finished and have no assignment, or they are just waiting for the next activity.
    - Students are engaged in some type of activity that does not directly involve the lesson objective.
      - Examples: Using crayons or pencils to color a picture that is not directly related to the lesson objective or playing a non-academic game that is being used as a time filler between activities.

12. Other
    - This category will include any activity that has not been specifically identified by activities 1-10. Please make sure your notes describe the activity sufficiently.